Special Issue

Magnetic and Structural Properties of Ferromagnetic Thin Films

Message from the Guest Editors

Thin film magnetism has led to fundamental advances in the physics of magnetism as well as important technological applications. With the rapid development of deposition and characterisation techniques, new phenomena were discovered, such as the GMR effect, which made a crucial contribution to the storage technology which paved the way for growing research on spin-dependent phenomena and the emergence of the field of spintronics. Spintronic devices rely on the control of spin-polarized currents which, on a magnetic film, may induce magnetization reversal or dynamics without the need for an external magnetic field. This Special Issue is dedicated to magnetic properties of thin films such as fundamental properties, e.g., the magnetic moment and magnetic anisotropy. It will cover phenomena including, but not limited to, those that arise from the spin-orbit coupling that encompasses magnetocrystalline anisotropy, magnetic damping/relaxation, orbital moment or spin-orbit torques.

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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